

x^2

x

x

1

$-x^2$

$-x$

-1

What does the area represent?
What are the side lengths?

x^2

x

1

1

1

x

1

1

1

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x^2

x

x

1

$-x^2$

$-x$

-1

What does the area represent?
What are the side lengths?

x^2

x

x

-1

-1

x^2

x

x

-1

-1

x

-1

-1

-1

-1

x

-1

-1

-1

-1

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1

L4(3.4) - Multiplying Polynomials & Expanding Binomials

Recall: Multiplying two linear terms together forms an area.

We can often represent this multiplication using algebra tiles.

On paper, we can represent this:

- (a) graphically (an area model), or
- (b) algebraically

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Definitions:

1. Monomial - an expression with a single term

$3x$ or 7 or $5xy$ or a^2bc^3

2. Binomial - an expression with two terms

$(2x + 5)$ or $(a + 2b)$ or $(m^2 - pq)$

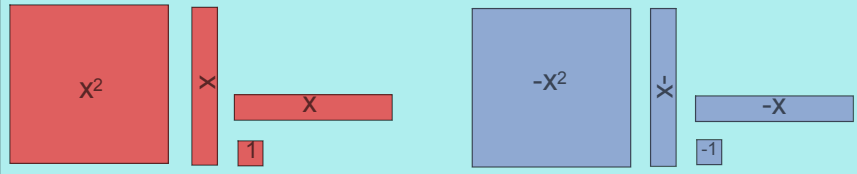
What is a term? _____

3. Trinomial - an expression with three terms

$x^2 + 5x + 6$ or $2xy + a + 5$

4. Polynomial - an expression with any number of terms.

Mar 26-8:43 AM



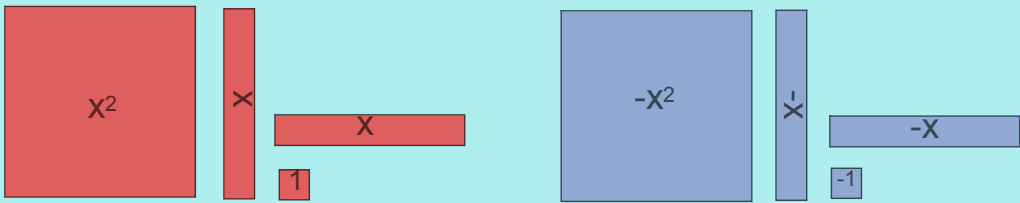
The image shows algebra tiles for the expression $(x-1)(x-2)$. On the left, red tiles represent x^2 (a large square), x (a horizontal rectangle), and 1 (a small square). On the right, blue tiles represent $-x^2$ (a large square), $-x$ (a horizontal rectangle), and -1 (a small square). Below the tiles, the text "Evaluate: $(x - 1)(x - 2)$ " is written. To the right of the text is a red circle with a white 'f' inside. A large empty rectangular area is provided for the student to draw the area model.

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Ex.1 Evaluate using an area model

(a) $(x - 1)(x - 2)$

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Evaluate: $(2x + 7)(3x - 5)$



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Ex.1 Evaluate using an area model... continued

(b) $(2x + 7)(3x - 5)$

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Ex.2 Evaluate using the distributive property

(a) $2x(3x - 4)$

(b) $(2x + 3)(5x + 2)$

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Ex.3 Evaluate using FOIL (First-Outer-Inner-Last)

(a) $(3x - 5)(2x + 7)$

Oct 24-11:35 PM

Assigned Work:

p.166-167 # 3 - 5 (odd)
8 - 10 (odd)

Mar 26-9:06 AM